

20 SEP 1983

Notes for Discussion on Off-Site Conference Topic

TOPIC: Prepare a proposal for the establishment of a service of common concern dedicated to acquiring and providing to the Community open source information, particularly in the S&T area. (HUMINT Committee, with Executive Director, CIA, and GDIP.)

1. Considerable work has been done with regard to S&T open source information. All of it also applies to other (non-S&T) open source material.

2. An HC/STIC Working Group developed a report with specific recommendations, the first of which should do much to improve the situation.

3. The report is about to be sent to the DCI for approval (through D/ICS). C/HC and C/STIC are meeting on it at 1600 hours, tomorrow, Tuesday, 27 September. (See Tab A) The recommendations are:

- NFIC review of the report; appointment of a Program Manager-level Steering Group to be chaired by a senior official and supported by the HC, to supervise implementation. That the Group's TOR provide for greater centralization, to include the possible establishment of a Center.
- Increasing the importance given in the Intelligence Community to the collection and processing of overtly acquired information, particularly open source material.
- Improving and accelerating translation service by optimizing resource utilization, including machine translations and other new technology.
- Establishing a centralized translation indexing and depository system to facilitate determining the status of a translation, and for retrieving the translation itself.
- Expanding the scope of FTD's CIRC data base to include the S&T interest of non-DoD intelligence agencies.
- Developing standards for processing open source material so that its availability to analysts (through dissemination and retrospective search and retrieval) is as good as that of intelligence information reports, regardless of whether an intelligence or non-intelligence agency processes the material.

Notes for Discussion . . . (continued/pg 2)

- Providing for more effective ADP manipulation of overtly collected information--including commercially processed open source material--so that analysts can not only identify and retrieve documents, but also apply sophisticated computer techniques directly to the analysis of information in the documents.
- Consolidating or coordinating processing systems that duplicate one another.
- Educating both analysts and information specialists so that they will be aware of available overtly collected information, the processors of it, and how to obtain the results of the processing.
- Improving analyst/information specialist interaction through colocation.
- Initiating a program to exploit foreign S&T data bases.

4. There is a separate memorandum, prepared by the HC at the request of the DDCI, charging EO/CIA with establishing a Center for Soviet S&T material with maximum use of machine translation and other new technology. This memorandum has not been signed. The DDCI requested a meeting on 14 October with Dr. Julian Nall (NIO for S&T) and STAT presumably on this subject (see Tab B).

ICS/HC 83-154

MEMORANDUM FOR: Deputy Director of Central Intelligence

THROUGH: Acting Director, Intelligence Community Staff

FROM: [redacted] Chairman, HUMINT Committee
[redacted] Chairman, STIC

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SUBJECT: STIC-HUMINT Committee Report: The Processing of Overtly
Collected S&T Information

1. Action Requested: See paragraph 3.

2. Background:

a. At the off-site conference in August you were advised that the STIC and HUMINT Committees had produced a paper on the processing of overtly collected science and technology intelligence. This report will be published within the next few days. Its essence is contained in the enclosed (tab A) Findings and Recommendations section. The rest of the report, which is quite detailed and voluminous, supports these first 20-or-so pages.

b. The report, which resulted from an intensive review of the subject, resulted in recommended actions in the following broad areas:

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CL BY SIGNER
DECL: OADR
DERIVED: MULTIPLE

S E C R E T

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3. Recommendations: That the DDCI sign the attached memorandum (tab B) approving the report's recommendations and, in particular, the first recommendation which sets in motion all the rest:

- a. That a review of the report is to take place at the NFIC.
- b. That a steering group consisting of appropriate Program Managers be established by the DCI to meet monthly to direct the effort to achieve meaningful action in this field.
- c. That the Steering Group, charged (by TOR) with implementing the recommendations, be enjoined to consider further centralization of processing functions, to include the establishment of a Center.

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d. That the steering group chairman be a senior officer with a strong commitment to the subject.

[REDACTED]
Chairman, HUMINT Committee

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[REDACTED]
Chairman, STIC

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Atts: A and B

S E C R E T

The Deputy Director of Central Intelligence

Washington, D. C. 20505

MEMORANDUM FOR: [redacted] Chairman, HC
[redacted] Chairman, STIC

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SUBJECT: STIC-HUMINT Committee Report: The Processing of
Overtly Collected S&T Information

The recommendations contained in the STIC/HUMINT Committee Report,
The Processing of Overtly Collected Scientific and Technical Information,
are approved subject to review and recommendations by the National
Foreign Intelligence Council.

John N. McMahon

CL BY SIGNER
DECL: OADR
DERIVED: MULTIPLE

S E C R E T

DIRECTOR OF CENTRAL INTELLIGENCE
HUMINT Committee

HC 83-135
16 August 1983

B

MEMORANDUM FOR: Acting Director of Central Intelligence

VIA: Acting Director, Intelligence Community Staff

19 AUG 1983

FROM:

Acting Chairman, HUMINT Committee

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SUBJECT: Establishment of Center for Soviet Science
and Technology Open Source Information

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1. Action Requested: See Paragraph 3.

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2. Background:

a. This action is in response to your request for a memorandum asking Executive Director, CIA to establish a Center for Soviet S&T open source information, with a view to improving the flow of such material to analysts.

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b. The need for a central USG element to manage the exploitation and dissemination of open source materials on Soviet science and technology has been clearly established, most recently during discussions at the Off-Site Conference. The consumers' stated need for an increased volume of and simplified access to these materials is supported by much evidence including the findings of a nearly completed Community study, the recommendations of which include:

- the need for increased Community priority;
- the need for systematic processing and retrieval;
- consolidation/coordination of currently available processing systems to eliminate duplication; and
- improving Community-wide access to translations.

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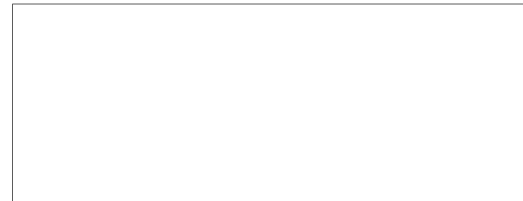
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c. Such a Center should operate as a service of common concern. To perform its mission effectively, the Center will require the active support and cooperation of organizations now playing an important role in the acquisition and processing of Soviet open source materials in the S&T area. These include: FBIS, OCR, Air Force/FTD, and the Department of Commerce's National Technical Information Service. The Center will be responsible for overseeing the procurement and translation of pertinent materials, and such processing functions as dissemination, retrospective search, retrieval, and collation.

d. The Center will, of course, build on and modify the existing activities of such Community organizations as FBIS and FTD, and non-Community entities such as NTIS. Additional resources will probably be necessary to support this undertaking. 

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3. Recommendation: That the ADCI sign the attached memorandum.



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Attachment: a/s

S E C R E T

MEMORANDUM FOR: Executive Director, Central Intelligence Agency

FROM: Acting Director of Central Intelligence

SUBJECT: Establishment of Center for Open Source Soviet
Science and Technology Information

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1. The flow of Soviet S&T open source material to Community analysts has long been considered inadequate. While adjustments have been made in various areas, these have reduced the problem only marginally. It is clear to me that there is a need for a central element to serve the Intelligence Community in managing the acquisition and exploitation of Soviet S&T open source material.

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2. I request that you establish a Center to manage the Community's acquisition and exploitation of Soviet S&T materials and, with the support of OCR, to speed up and simplify the processes whereby Community analysts gain access to this material. The use of machine translations and other available technology and systems, including computer-driven dissemination and retrieval, should be encouraged. The support and cooperation of FBIS, OCR, FTD and Commerce's National Technical Information Service (NTIS), each of which has a key role in the realm of Soviet S&T open source activities, are essential to this undertaking. (C)

3. I expect that you will need support in the resource area to carry out this important undertaking. I would like to see your resource needs reflected in the 1985/89 budget submission and would appreciate a progress report in six months.

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John N. McMahon

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CONFIDENTIAL

DCI

HUMINT COMMITTEE

NOTE FOR:

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FROM:

HUMINT Committee

Attached is the modified report on overt S&T information. As I mentioned to you, we concentrated our efforts on the first 20 pages, on the theory that these are the ones on which decision-makers will focus.

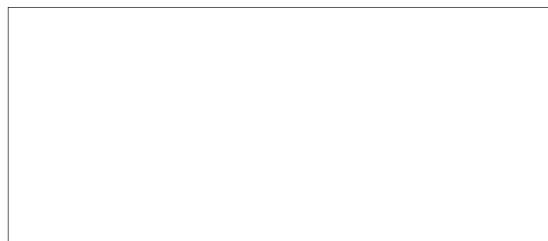
On the memo, I hope to have something for you in the next day or two.

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Scientific and Technical Intelligence Committee

HUMINT Committee

THE PROCESSING OF OVERTLY COLLECTED
SCIENTIFIC AND TECHNICAL INTELLIGENCE INFORMATION (U)



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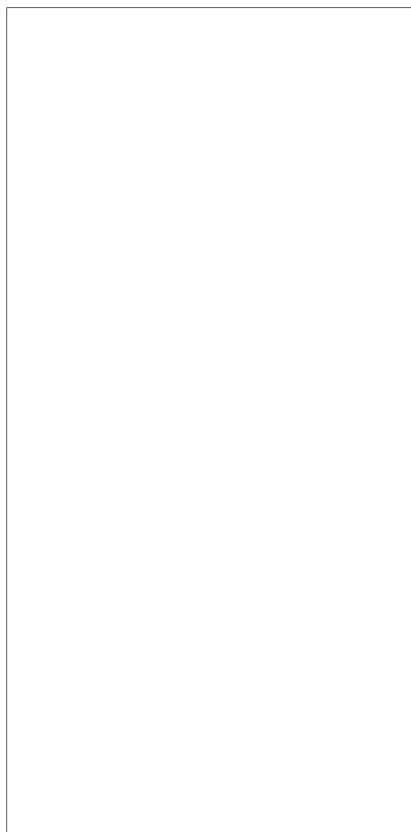
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Note to Readers

The Scientific and Technical Intelligence Committee is the DCI Committee whose mission in part is to advise and assist the DCI with respect to production of intelligence on foreign science and technology, to advise the National Foreign Intelligence Board, and to coordinate activity, information processing, and analyses in these areas. The Committee reports to the DCI through the DDCI and to NFIB through the Board's Secretariat.

*Suggest this
page be deleted.
If not, it would
have to be matched
by a HUMINT
Committee page.*

The current STIC Chairman, members, and associate members are:



Central Intelligence Agency

STAT

Central Intelligence Agency

Defense Intelligence Agency

Department of the Army

Department of the Navy

Department of the Air Force

National Security Agency

Department of State

Department of Commerce

Defense Advanced Research

Projects Agency

Defense Intelligence Agency

Department of the Army

Department of the Navy

National Security Agency

Central Intelligence Agency

Department of Energy

Department of State

Department of Commerce

Department of the Navy

Arms Control and

Disarmament Agency

Central Intelligence Agency

Department of the Army

(Assistant Executive Secretary)

This information is Unclassified.

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FINDINGS AND RECOMMENDATIONS

A. INTRODUCTION

The Working Group sees three broad areas that need attention. Its findings and recommendations fall into these three general categories:

1. Processing Coordination. Processing of overtly collected information within the IC requires better direction and coordination to be more useful to analysts.

Improvements are required in order to reduce the complexity, from the analyst point of view, of the processing system. Even if the analyst is very knowledgeable about the multiplicity of systems and sources, there are still too many to use them efficiently and well. Time limitations impair the analyst's ability to use these systems effectively. The great bulk of the Working Group's findings and recommendations, therefore, relate to improvements in the current processing systems.

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2. Analyst Education. Analysts need additional training in order to be able to make better use of the processing resources available to them.

The complexity of the collection and processing systems for overtly collected information presents a formidable obstacle to the S&T intelligence analyst's effective and efficient use of these systems. Even though information handling specialists exist to help, the analysts need to know how best to utilize their services. A great many analysts are unaware of the multiplicity of the information processing services available to them. Moreover, analysts identified their own need for additional information on processing services as the primary requirement for better exploitation of overtly collected information. The establishment of training courses/sessions for new analysts, old analysts and first line supervisors is a key recommendation. At the same time, there is a need for periodic training and retraining of information specialists focusing on S&T data bases--both government and commercial--that are of present or potential value to IC analysts.

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3. Prealysis Improvement. Prealysis is required in order to reduce the volume and increase the value of material reaching analysts.

With few exceptions, none of the processing evaluated provides significant assistance to analysis in terms of organizing, collating, or sorting the information to aid analysts to select the most relevant information. A broad spectrum of possibilities exists, ranging from tasking an activity to performing preanalysis to applying automated techniques to the processing itself. The analyst is faced with a great number of individual information items (journal articles, newspaper reports, patents, etc.) to review, collate, excerpt, and assess. There are virtually no automated "shoeboxes" available to assist analysts. Requirements for information systems must go beyond storage and retrieval.

The following additional yet very important observations should be kept in mind when reading the recommendations:

- o The recommendations can be implemented without the establishment of any new processing entities. In any case, no new processing entities should be established without thorough review of the capability, capacity, and potential scope of existing processing entities. 25X1
- o The study addressed only overtly collected S&T information. Many findings and recommendations are probably valid for "other than S&T" and "other than overtly collected" information, extension to these other categories should not be made automatically. 25X1
- o A disproportionately large number of recommendations appear to address improvements to the CIRC system. The CIRC system is the only IC operation that is primarily devoted to processing all categories of open source S&T information (about 85% of the data base content is open source) and, moreover, provides more comprehensive processing than any other. This option is far preferable to the alternatives of creating new systems or going outside the community. 25X1

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FINDINGS AND RECOMMENDATIONS

A. INTRODUCTION

1. The Working Group sees four broad areas that need attention. Its findings and recommendations can be fit into these four general categories:

- a. Processing of overtly collected information within the IC requires better direction and coordination to be more useful to analysts.
- b. Analysts need additional training in order to be able to make better use of the processing resources available to them.
- c. Numerous changes, mostly minor, in the current methods of processing are required.
- d. Preanalysis is required in order to reduce the volume and increase the value of material reaching analysts.

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2. Processing Coordination. Improvements in the operation of Intelligence Community systems containing overtly collected information and increased organized exploitation of non-Community information systems are required in order to reduce the complexity, from the analyst point of view, of the processing system. Even if the analyst is very knowledgeable about the multiplicity of systems and sources, there are still too many to use them efficiently and well. The analyst has time limitations that impair his ability to use these systems effectively. The great bulk of the Working Group's findings and recommendations, therefore, relate to improvements in the current processing systems.

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3. Analyst Education. The complexity of the collection and processing systems for overtly collected information presents a formidable obstacle to the S&T intelligence analyst's effective and efficient use of these systems. Even though information handling specialists exist to help, the analysts need to know how best to utilize their services. The analyst survey conducted by the Working Group indicated that a great many analysts are not aware of many of the information processing services available to them. Moreover, analysts identified their own need for additional information on processing services as the primary requirement for better exploitation of overtly collected information. Even if our other categories of recommendations are implemented, the analyst still requires a better

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understanding of the strengths and weaknesses of the processing and preprocessing services available. Therefore, the Working Group considers the establishment of training courses/sessions for new analysts, old analysts and first line supervisors as a key recommendation. At the same time, there is a need for periodic training and retraining of information specialists focussing on S&T data bases--both government and commercial--that are of present or potential value to IC analysts. The training should be designed to familiarize information specialists with exploitation of various types of data bases with a view to encourage them to exploit the data bases with greater discernment and to increase the number of automated information sources they regularly exploit when assisting S&T analysts. []

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4. Prealysis Improvement. With few exceptions, none of the processing evaluated provides significant assistance to analysis in terms of organizing, collating, or sorting the information that would aid analysts in selecting the most relevant information. A broad spectrum of possibilities exist, ranging from tasking an activity to perform preanalysis (practiced to some extent by using contractor support, reports of which are often not generally available) to applying automated techniques to the processing itself. Even with knowledgeable analysts and well-coordinated and efficient processing activities, the analyst is still faced with a great number of individual information items (journal articles, newspaper reports, patents, etc.) to review, collate, excerpt, and assess. Increased attention needs to be given not only to the assistance that can be provided by technical information specialists, intelligence assistants, contractors, etc., but also to processing that can be performed directly by computers on information contained therein before the information comes to analysts. There are virtually no automated "shoeboxes" available to assist analysts. In a few cases, individual analysts have aggressively established such capabilities for their own use. The general philosophy of CIA SAFE and DIA SAFE is to provide an organization-wide support for that capability. Such a capability within each IC organization would at a minimum allow analysts, when they can acquire information in machine-readable form, to manipulate it for their own purposes, or initiate some preprocessing of their own. Believing strongly that our requirements on information systems must go beyond storage and retrieval, the Working Group has addressed several of its findings and recommendations to preanalysis. []

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5. The Working Group makes the following additional, yet very important, observations which should be kept in mind when reading these recommendations.

- a. The large number of recommendations for improvement should not be taken as criticism of current processing organizations or personnel. By and large the Working Group considers the quality of current processing to be good. Our survey results indicate

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that in general the analytical community is satisfied with the quality of current processing support. [REDACTED]

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- b. The Working Group believes that its recommendations can all be implemented without the establishment of any new processing entities. In any case, no new processing entities should be established without thorough review of the capability, capacity, and potential scope of existing processing entities. [REDACTED]
- c. The Working Group addressed only overtly collected S&T information. While we recognize that many of our findings and recommendations are probably valid for "other than S&T" and "other than overtly collected" information, extension to these other categories should not be made automatically. [REDACTED]
- d. The Working Group recognizes that a disproportionately large number of its recommendations appear to address improvements to the CIRC system. The CIRC system is the only IC operation that is primarily devoted to processing all categories of open source S&T information (about 85% of the data base content is open source) and, moreover, provides more comprehensive processing than any other. The Working Group believes that a significant number of its recommendations can be implemented by modifying this system or using it more efficiently. This option is far preferable to the alternatives of creating new systems or going outside the community. [REDACTED]
- e. Specific recommendations that follow include both the functional recommendation and the implementation mechanisms which the working group agrees are most appropriate. Each recommendation is associated with pertinent working group findings. [REDACTED]

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Technical Intelligence Analyst Requirements Survey

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I. INTRODUCTION

A. WORKING GROUP OBJECTIVES

The purpose of the Working Group was to prepare a White Paper detailing its findings and to make recommendations for improving processing of overtly collected Scientific and Technical Information (S&TI). The Working Group had the following objectives:

1. Establish a frame of reference and context for the study
2. Investigate and describe general processing functions, data sources, subject coverage, and information handling procedures for overt S&TI that exist in (a) IC intelligence organizations, (b) governmental non-IC agencies, and (c) selected commercial organizations
3. Survey and explain intelligence analyst requirements for processing overt S&TI
4. Assess and evaluate these findings and formulate recommendations on possible improvements in processing overt S&TI for intelligence analysis.

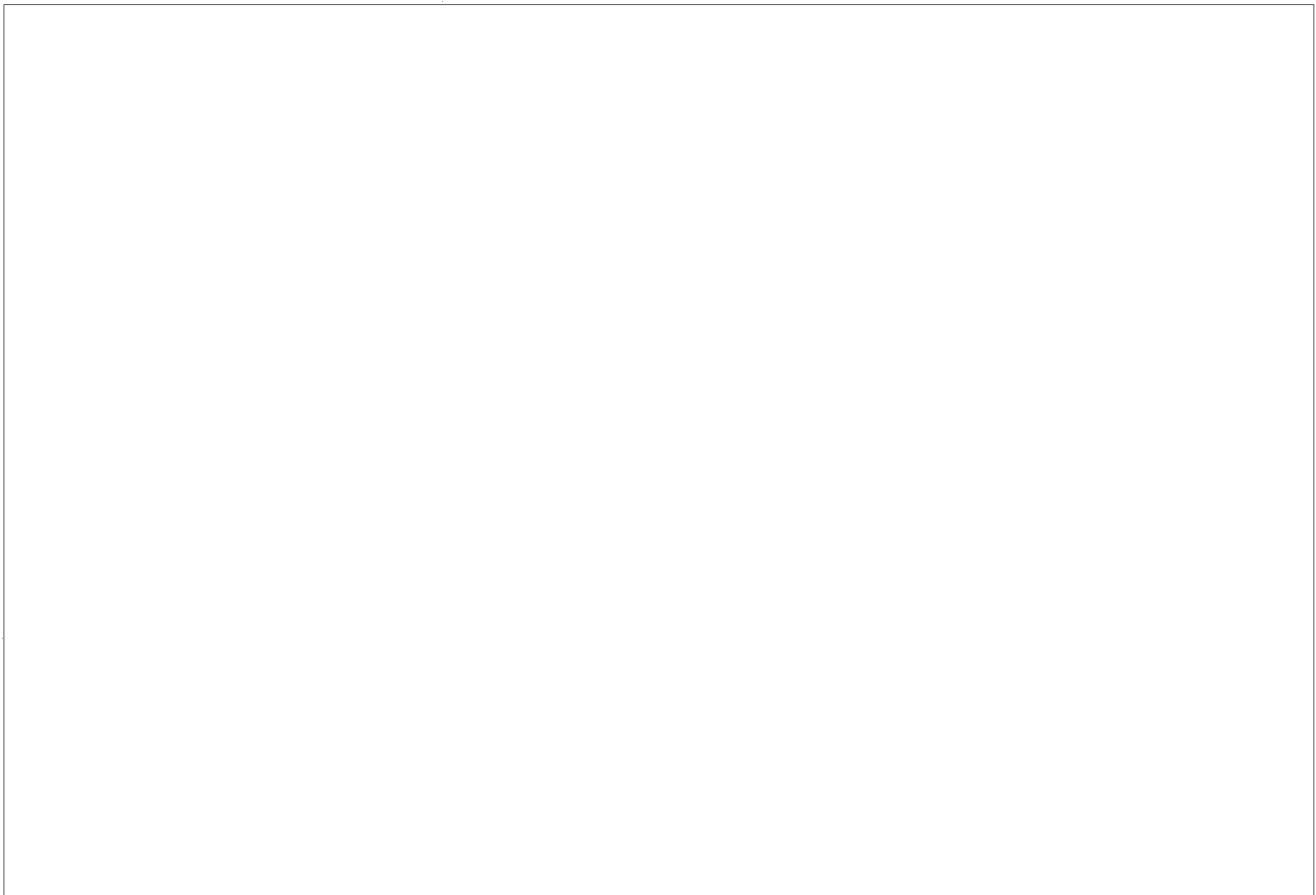
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B. APPROACH AND METHODOLOGY

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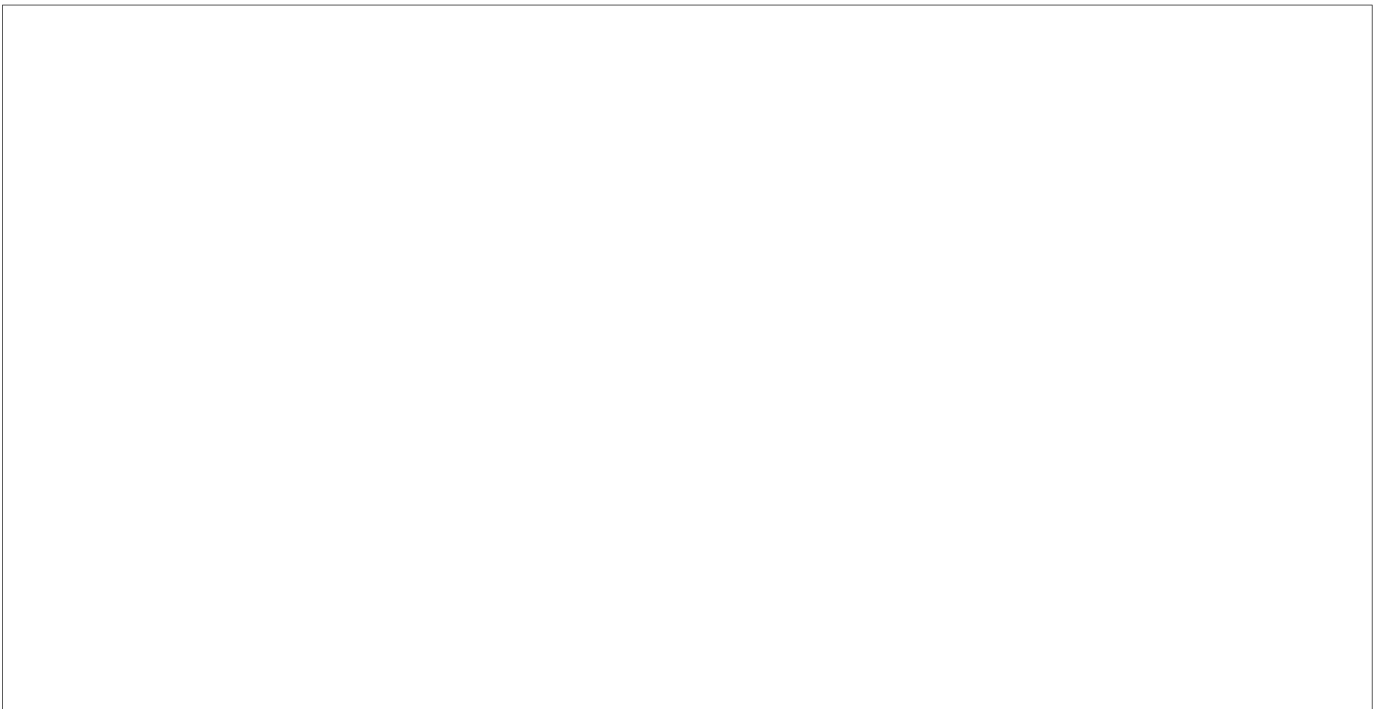
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C. LIMITATIONS ON THE STUDY

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D. ORGANIZATION OF THE REPORT

This report is being published in three separately bound volumes. The basic report plus two volumes of annexes. The basic report presents the Working Group's findings and recommendations and a summary of the Working Group's effort designed to make these findings and recommendations more understandable. (U)

Annexes A through D are in the second bound volume and Annexes E and F in the third. Annexes A, E, and F provide most of the substance of the Working Group's efforts - the background information upon which the findings and recommendations are based. Annex A describes the way in which the various categories of overtly collected information are processed, both inside and outside the Community. Annexes E and F were compiled by the Working Group's contractor,

They contain the complete results of the two surveys conducted by the Working Group, the first to profile the Community's S&T analyst population and the second to determine in detail current processing requirements and deficiencies as seen by the S&T analysts throughout the Community. Annexes B, C, and D contain references and bibliography, a list of acronyms used, definitions of terms used, and the Working Group's complete terms of reference. (U)

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